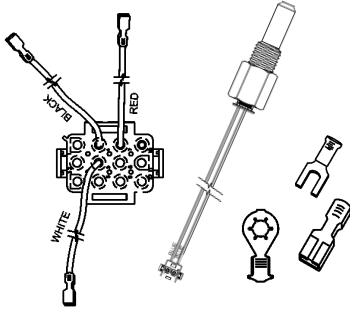


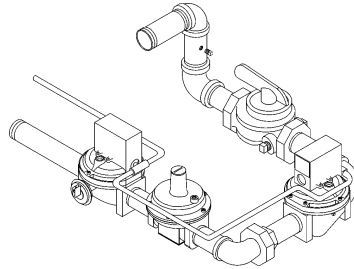
### COMMERCIAL POWER BURNER BOILER REPLACEMENT PARTS LIST

COPPER BOILERS FOR HYDRONIC  
HEATING & HOT WATER SUPPLY  
LEGEND MODELS LW/LB: 1000  
SERIES 980, 981

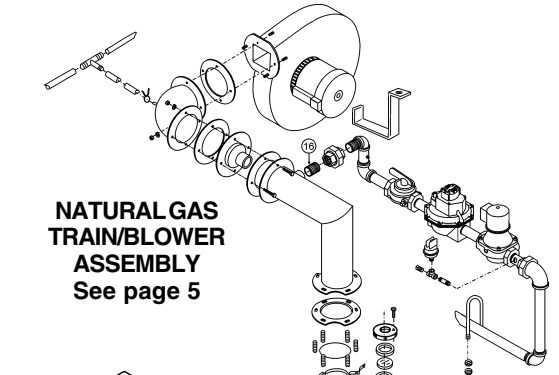
**WIRING/HARNESS & PROBES**  
See page 8



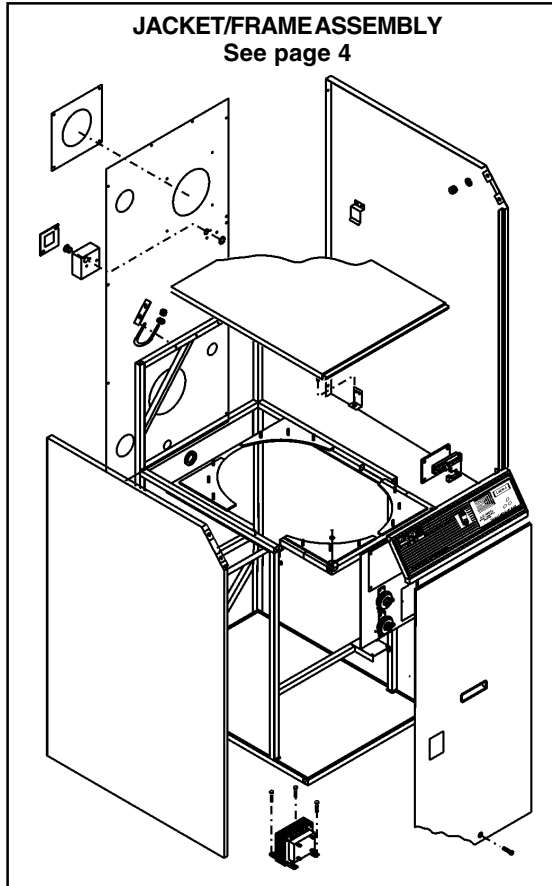
**PROPANE GAS TRAIN ASSEMBLY**  
See page 6



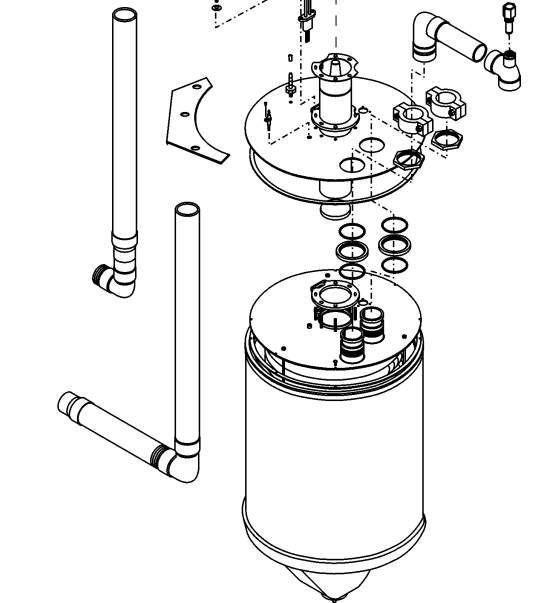
**NATURAL GAS TRAIN/BLOWER ASSEMBLY**  
See page 5



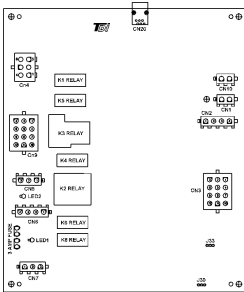
**JACKET/FRAME ASSEMBLY**  
See page 4



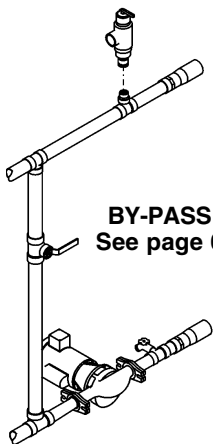
**WATERWAYS & COMBUSTION CHAMBER**  
See page 2



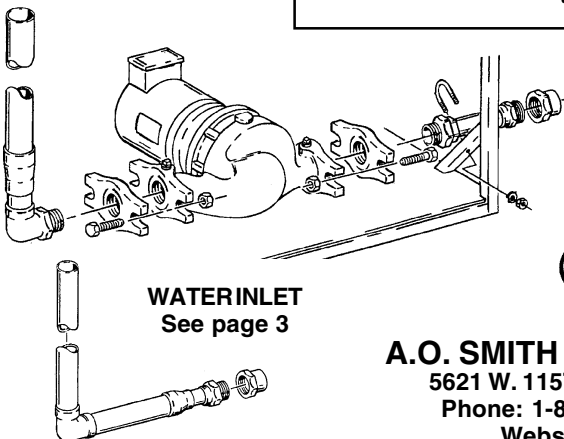
**CONTROL BOARD**  
See page 7



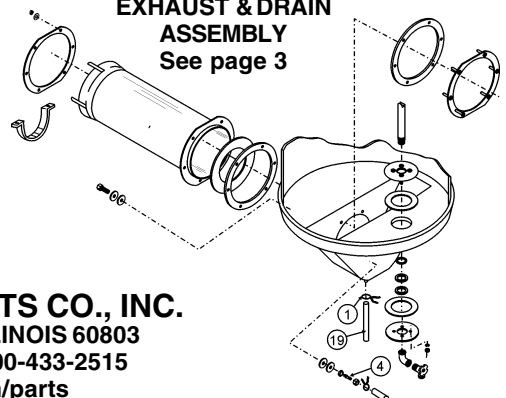
**BY-PASS**  
See page 6



**WATER INLET**  
See page 3



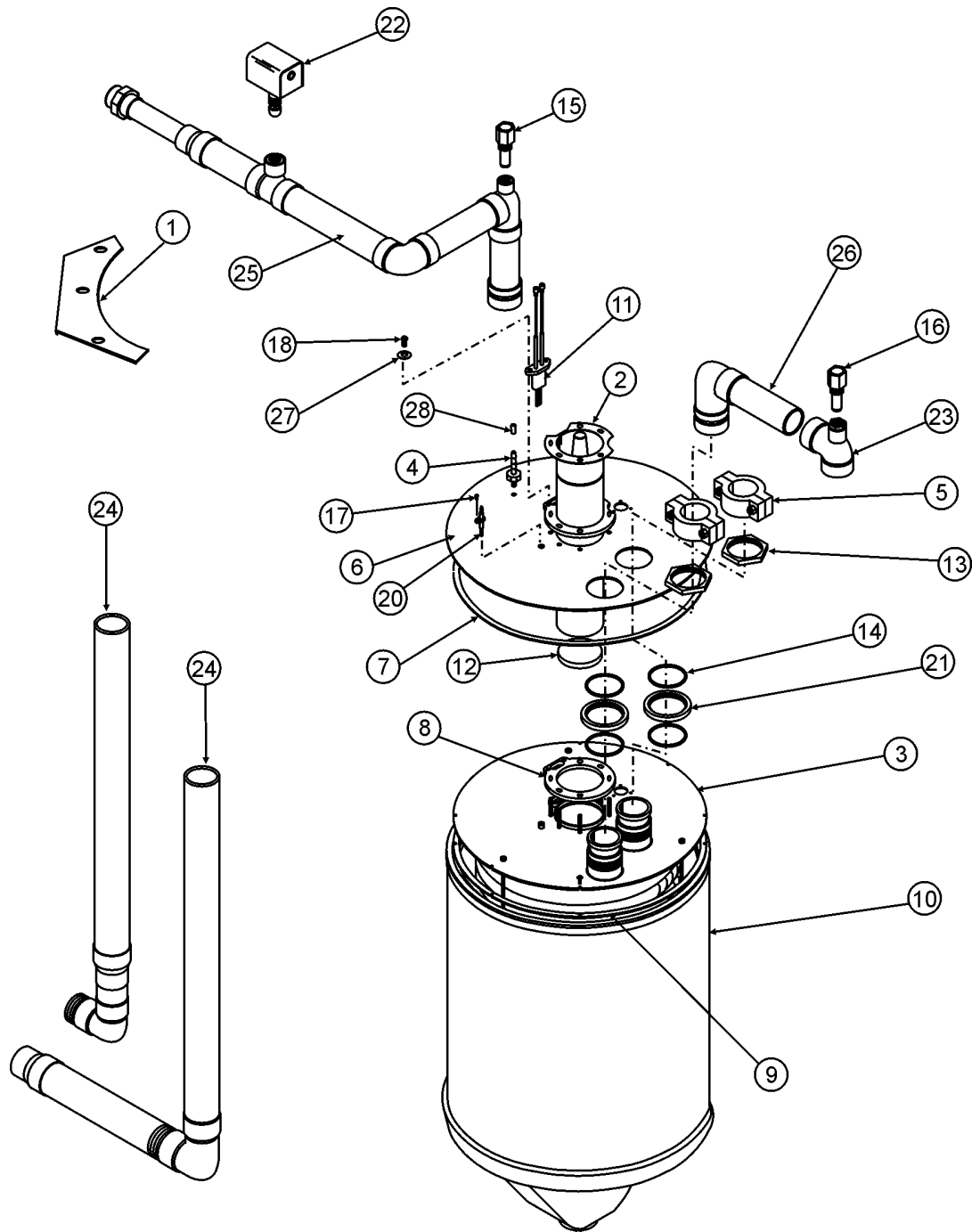
**EXHAUST & DRAIN ASSEMBLY**  
See page 3



**A.O. SMITH WATER PRODUCTS CO., INC.**  
5621 W. 115TH STREET • ALSIP, ILLINOIS 60803  
Phone: 1-800-433-2545 • Fax: 1-800-433-2515  
Website: [www.hotwater.com/parts](http://www.hotwater.com/parts)

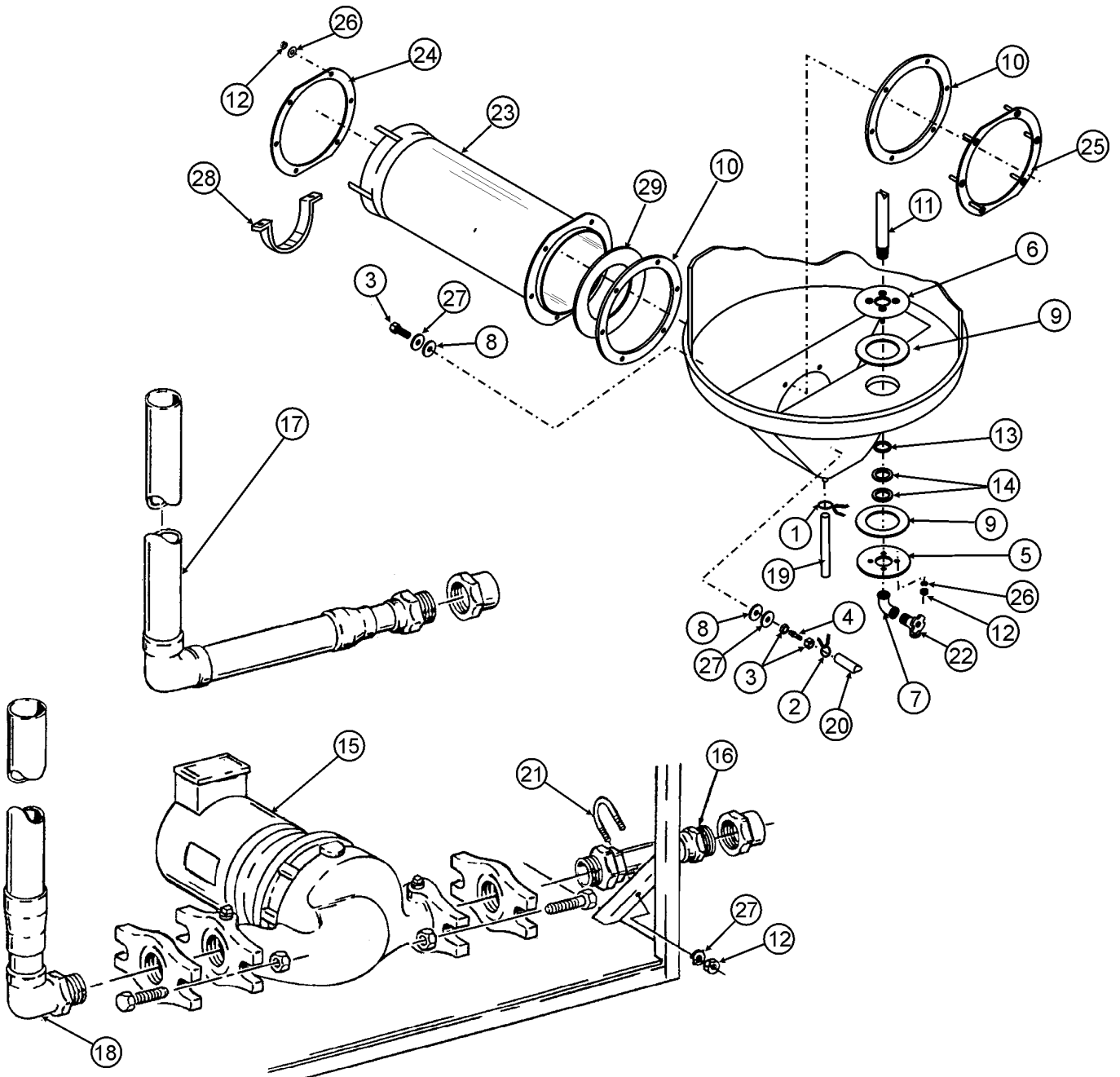
## LB/LW 1000 WATERWAYS & COMBUSTION CHAMBER PARTS LIST

Item	Description	Part Number	Item	Description	Part Number
1	Bracket	191602	16	Probe, Inlet Temp	210571
2	Burner and Cone Assembly	191850-2	17	Screw, Machine #8-32/ 3/8" Long, SST	210444
3	Combustion Chamber Assembly	192129-1	18	Screw, Machine #8-32/ 1" Long, SST	191770
4	Connector, Hose	191765	19	Sealer, Silicone (not shown)	191482-1
5	Coupling, Flexible w/Gasket	191780-1	20	Sensor, Flame	210421
6	Cover Outer	210404	21	Spacer Ring	191554-1
7	Gasket, Outer	191563-1	22	Switch, Safety Flow	210176
8	Gasket, Burner	191564-1	23	Tee Assembly	192387
9	Gasket, Inner	191563	24	Tube Assembly, Primary (LW Models)	192388
10	Housing Assembly	191627-4	24	Tube Assembly, Primary (LB Models)	192225
11	Ignitor	192334	25	Tube Assembly, Outlet	210426
12	Insulation, Burner	191618	26	Tube Assembly, Secondary	192386
13	Nut, Manifold	191555-1	27	Washer, Flat #8 SST	191768
14	O-Ring	191556-2	28	Restrictor-Air, Top Cover	191926-1
15	Probe, Outlet Temp./ECO	210572			



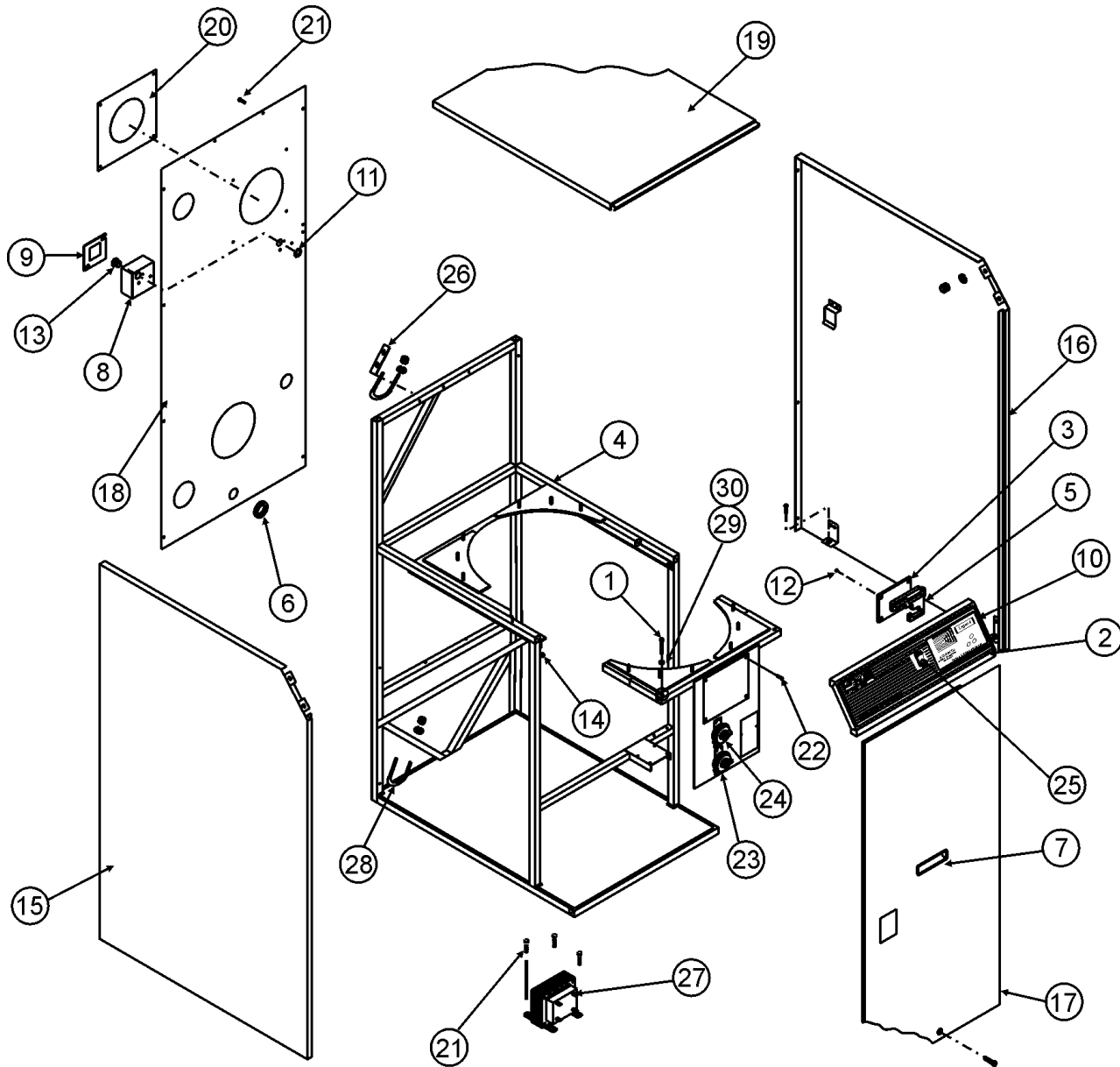
## LB/LW 1000 EXHAUST, DRAIN & WATER INLET ASSEMBLY PARTS LIST

Item	Description	Part Number	Item	Description	Part Number
1	Clamp, Hose (Large)	191794-1	16	Tube Assembly, Inlet (LW Models)	192308
2	Clamp, Hose (Small)	191794-3	17	Tube Assembly, Primary (LB Models)	192225
3	Connector, Female Bulkhead	191744	18	Tube Assembly, Primary (LW Models)	192388
4	Connector, Port	191745	19	Tubing, Condensate	191746
5	Drain, Flange	191620	20	Tubing, Pressure	191562
6	Drain, Flange Assembly	191625	21	U-Bolt Assembly	191938
7	Elbow	191664	22	Valve Drain	26273
8	Gasket, Blocked Flue	191767	23	Vent Assembly	210494
9	Gasket, Drain	191622	24	Vent Flange	191685-5
10	Gasket, Vent	191683-1	25	Vent Flange Assembly	191686-1
11	Nipple	20373-18	26	Washer, Lock 1/4" Stainless	191771
12	Nut, Hex 1/4"	191769	27	Washer, Flat	191766
13	O-Ring	191556-1	28	Vent Support, Bracket	192194
14	Plate, Drain Seal	191626	29	Vent, Restricting Ring (Series 981, LP)	191923-1
15	Pump Ass'y, Circulator (LW Models)	192203			



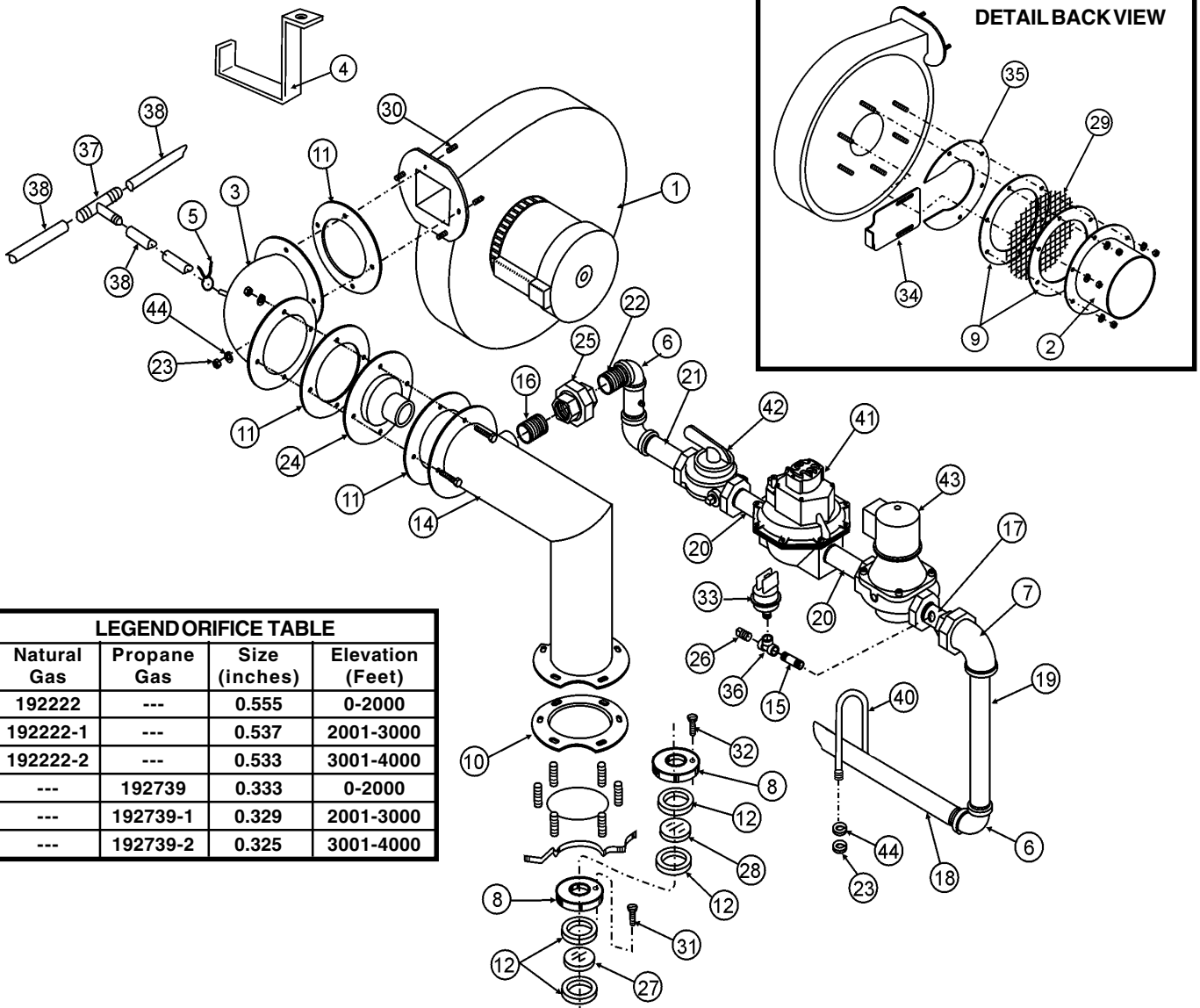
## LB/LW 1000 JACKET/FRAME ASSEMBLY

Item	Description	Part No.	Item	Description	Part No.
1	Bolt Machine 5/16" - 18"	191358-2	17	Panel, Lower Front	191805-1
2	Control Panel Assembly	210601	18	Panel, Rear (Natural)	192191
3	Display Board	210219		Panel, Rear (Propane)	210020
4	Frame Assembly	210501	19	Panel, Top Cover	191609-1
5	Gasket, Display	210130	20	Plate, Rear Cover	210214
6	Grommet	97951	21	Screw, Hex Head 5/16"	210125
7	Handle	191802	22	Screw, Hex Head #6 -32	210206
8	Junction Box Assembly	190438-1	23	Switch, Blower Prover	191666
9	Junction Box Cover	2233	24	Switch, Blocked Flue	191667
10	Label, Control Panel	210561-1	25	Switch, Rocker	191665-1
11	Locknut, Star	1953	26	Support Bracket (Propane Only)	210017
12	Locknut #6 -32	210207	27	Transformer (100VA)	210449
13	Nipple, Chase	41994	28	U - Bolt Assembly (Waterway)	191938
14	Nut, Lock Hex 5/16" - 18"	97896	29	Washer, Flat	191359
15	Panel Assembly, Left Side	191796-3	30	Washer, Lock	191480
16	Panel Assembly, Right Side	191796-2	31	Switch, Relay	211546



## LB/LW 1000 NATURAL GAS TRAIN/BLOWER ASSEMBLY

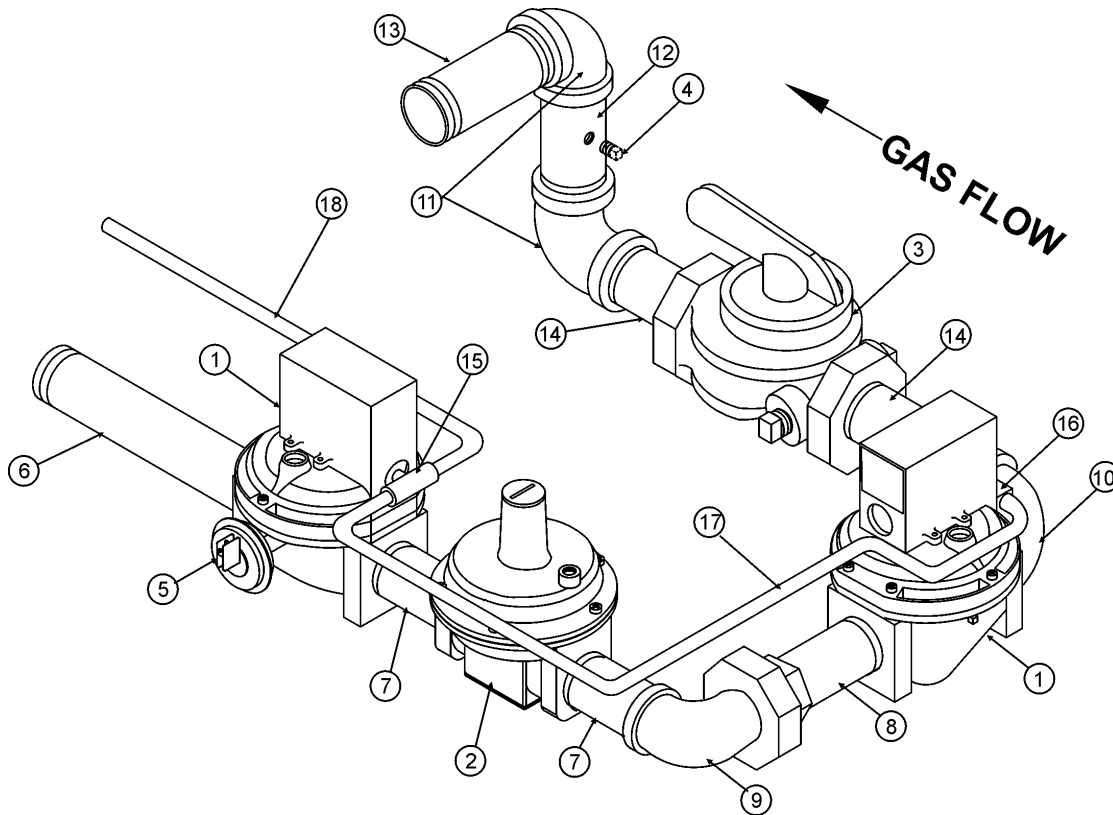
Item	Description	Part No.	Item	Description	Part No.
1	Blower	192195	24	Orifice, Air (Series 980 - Nat. Gas)	192737-3
2	Blower Adapter Assembly	192215-1		Orifice, Air (Series 981 - L.P. Gas)	192737-2
3	Blower Manifold Assembly	192217	25	Orifice, Union	See Orifice Table Below
4	Bracket, Blower	210214	26	Plug, 1/8" Pipe	3348
5	Clamp, Hose	191794-3	27	Port, Observation Lower	191572
6	Elbow, 1-1/4"	192216	28	Port, Observation Upper	191572-1
7	Elbow, Union 1-1/4"	86506-1	29	Screen, Air Inlet	192220-1
8	Flange, Observation Port	191573	30	Screw, Cap 1/4"	190960-2
9	Gasket, Blower Air Inlet	192213	31	Screw, Flathead #8-32 x 1/2"	191542
10	Gasket, Burner	191564	32	Screw, Flathead #8-32 x 3/4"	191542-1
11	Gasket, Manifold	191565	33	Switch, Low Gas Pressure	191149-1
12	Gasket, Port (1/8" Thick)	191576	34	Shutter, Blower	192593
14	Manifold Assembly - Air/Gas	192309	35	Shutter Flange	192592
15	Nipple, Close 1/8"	191147-3	36	Tee, 1/8"	40119
16	Nipple, Close Stainless	191772-1	37	Tee, Pressure	191633
17	Nipple, Tapped	86505-3	38	Tubing, Pressure	191562
18	Nipple, 1-1/4" x 38 1/2"	86505-28	40	U-Bolt Assembly (Gas Train)	191938-3
19	Nipple, 1-1/4" x 28 3/4"	86505-27	41	Valve, Main Gas	78481-3
20	Nipple, 1-1/4" x 2"	86505	42	Valve, Firing	3423-3
21	Nipple, 1-1/4" x 3"	86505-2	43	Valve, Solenoid Gas	192189
22	Nipple, 1-1/4" x 4"	86505-6	44	Washer, Lock 1/4"	1006
23	Nut, Hex 1/4"	170272			



Natural Gas	Propane Gas	Size (inches)	Elevation (Feet)
192222	---	0.555	0-2000
192222-1	---	0.537	2001-3000
192222-2	---	0.533	3001-4000
---	192739	0.333	0-2000
---	192739-1	0.329	2001-3000
---	192739-2	0.325	3001-4000

## LB/LW 1000 PROPANE GAS TRAIN ASSEMBLY

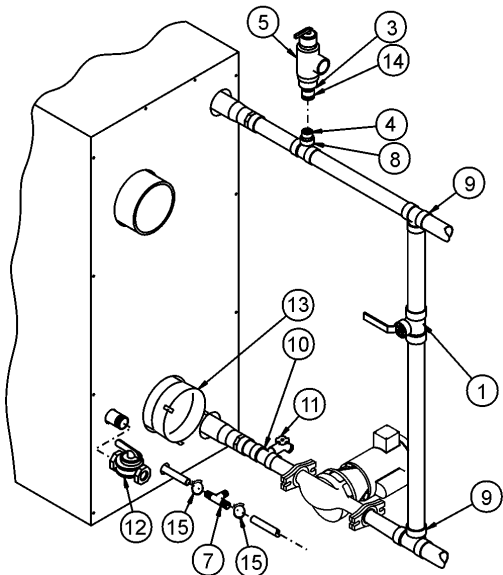
Item	Description	Part No.	Item	Description	Part No.
1	Valve, Main Gas, LP 981 Series	77780	10	Elbow, 90 Street 1-1/4"	94516
2	Regulator, LP 981 Series	192460	11	Elbow, 90 1-1/4"	192216
3	Valve, Firing	3423-3	12	Nipple, 1-1/4" w/Tapping	86505-32
4	Pipe Plug	3348	13	Nipple, 1-1/4"	86505-6
5	Switch, Low Gas Pressure	191149-3	14	Nipple, 1-1/4"	86505-4
6	Nipple, 1-1/4"	86505-13	15	Tee, 1/8" NPT Branch	192465
7	Nipple, 1-1/4"	86505-2	16	Connector, Angle 1/8"	1578
8	Nipple, 1-1/4"	86505-17	17	Bleeder, Tube	210016
9	Elbow, Union 1-1/4"	86506	18	Bleeder, Tube	192461



### LB/LW 1000 BY-PASS PARTS LIST

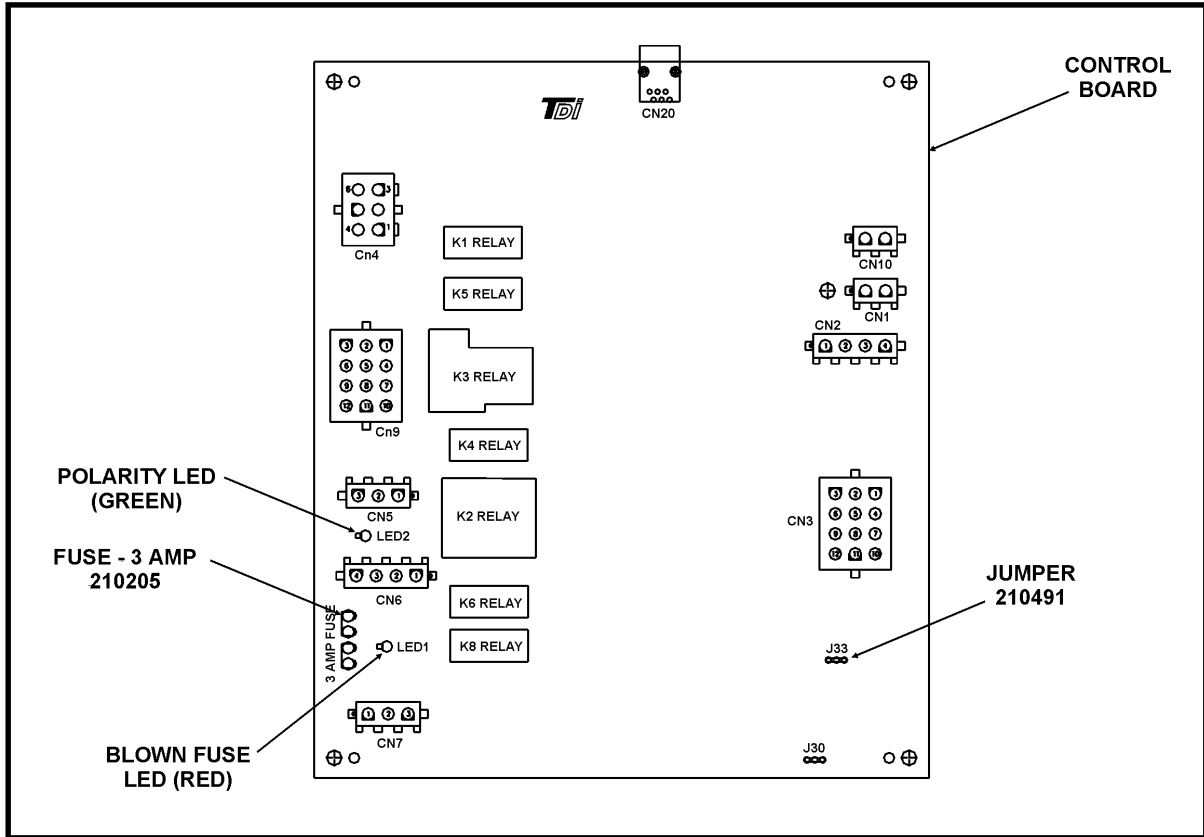
On LB models the circulating pump must be between the boiler inlet and the bypass (see figure below). LW models have pump mounted inside the jacket.

Item	Description	Part No.
1	Ball Valve	191935
2	Tank/Pump Kit (LW Models Only - Not Shown)	210625
3	Hex Reducing Bushing (LB Only)	91940-8
4	Flush Bushing (LB Only)	192163-2
5	Relief Valve (LW Model)	98883-3
	Relief Valve (LB Model)	210451-2
6	Strap, Cable (not shown)	99592-2
7	Tee, Condensate	192040-1
8	Tee (For use w/relief valve):	
	LW Model	78685-4
	LB Model	191584
9	Tee 2"x2"x2"	191584
10	Tee 2"x2"x3/4"	78685-4
11	Valve, Drain	26273
12	Valve, Manual Shutoff	3423-3
13	Vent Patch Assembly	192161
14	Nipple (For use w/Relief Valve)	
	LW Model	20373-12
	LB Model	92706-4
15	Clamp, Hose	191794-1



# LB/LW 1000 CONTROL BOARD WHC 1502

## Part Number 210128



### LB/LW 1000 WIRING CHART

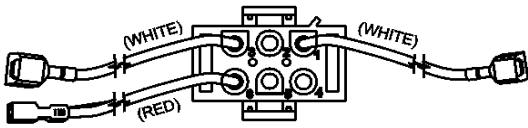
COLOR	GAUGE	PART NUMBER ***
White	14	41974
Black	14	99650
Green	14	41972
White	16	86580
Black	16	86578
Green	16	69058
White	18	170595
Black	18	170596
Green	18	170606
Blue	18	191719
Red	18	170603
Yellow	18	170604
Brown	18	170890
White/Red	18	191700
White/Yellow	18	191702
White/Black	18	191699
Black/White	18	191694
Yellow/Blue	18	191708
Red/Green	18	191717

\*\*\* Use dash number to indicate length of wire.  
 Example: 20 inch long red wire would be expressed as 170603-20.

LB/LW 1000 TERMINALS

78468	99593-6	78469	191673	42573	210091	210152	99599-2

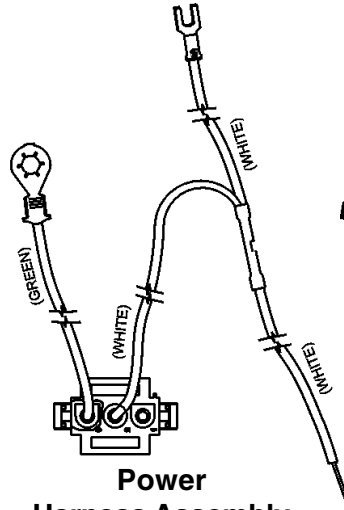
LB/LW 1000 WIRING AND HARNESS ASSEMBLY



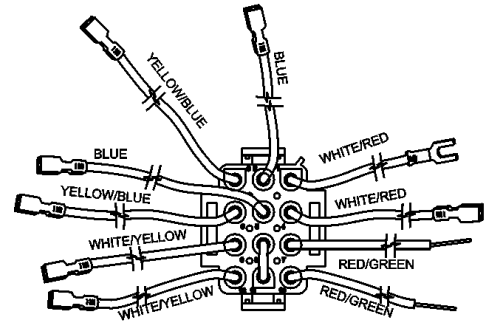
**Ignition  
Harness Assembly  
210575**



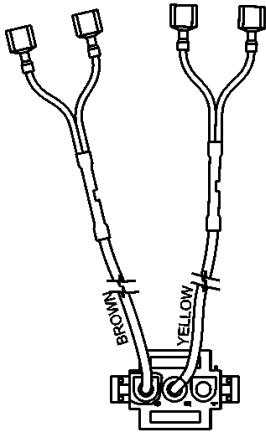
**Tank Probe  
Harness Assembly  
210604**



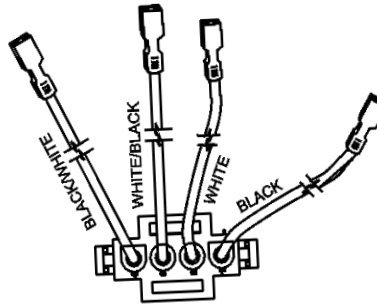
**Power  
Harness Assembly  
210579-1**



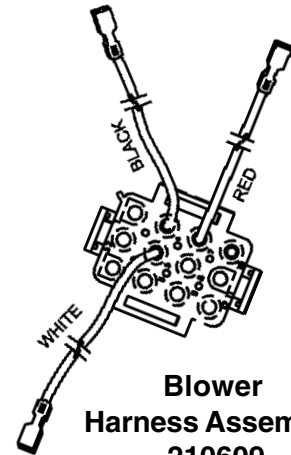
**Pressure Flow Switch  
Harness Assembly  
210576**



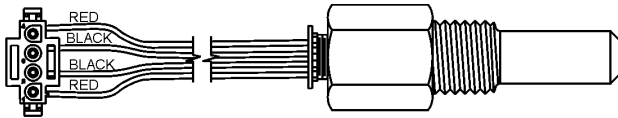
**Gas Valve  
Harness Assembly  
210574 (-1 Propane)**



**Transformer  
Harness Assembly  
210578**

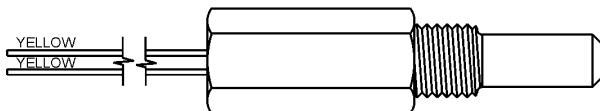
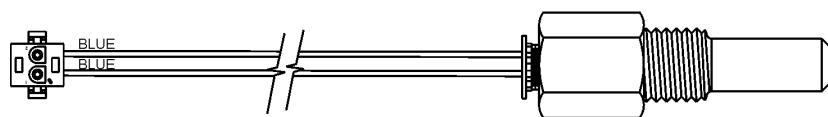


**Blower  
Harness Assembly  
210609**



**Outlet Temperature  
Control/ ECO Assembly  
210572**

**Inlet Temperature  
Control Assembly  
210571**



**Tank Probe (LW Models)  
210211-1**